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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,786	04/25/2005	Jiro Hattori	57832US005	6639
32692 7590 09/27/2007 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			EXAMINER LEGESSE, HENOK D	
			ART UNIT	PAPER NUMBER
			2861	
			NOTIFICATION DATE	DELIVERY MODE
			09/27/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/532,786	<b>Applicant(s)</b> HATTORI ET AL.	
	<b>Examiner</b> Henok Legesse	<b>Art Unit</b> 2861	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 June 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, and 5-6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ackerman (US 5,555,461).

**Regarding claim 1**, Ackerman teaches a head cleaning member (30,31, figs.1-4; col.4, lines 8-10) for use with an ink jet printer (10, fig.1; col.4, line 7) that performs printing on a recording medium by ejecting ink from a recording head (12, fig.1; col.3, line 50), said cleaning member (30,31) being used in abutment (see fig.3) against an ink ejection surface (23, fig.1; col.3, lines 56-57) of the recording head (12), in which said head cleaning member (30,31) has a major surface (64, figs.2, 4; col.6, lines 36-37) having an area (see fig.1, the size of 30,31 and 23) equal to or larger than the ink ejection surface (23) of said recording head (12) and a multiplicity of parallel and fine ink discharging grooves (62, figs.2,4; col.6, lines 17-19) are provided on said major surface (64) such that waste (waste ink) flows along the direction of the discharging grooves (62)(col.6, lines 29-48).

**Regarding claim 2**, Ackerman further teaches the ink discharging grooves (62, figs.2, 4) are integrally formed (col.6, lines 21-23) on the major surface of a base body (64, see figs.2, 4) of said head cleaning member (30,31).

**Regarding claim 3**, Ackerman further teaches the ink discharging grooves (62, figs.2, 4) are formed on a surface of a waste ink guiding film adhered to a base body (see figs.2, 4; grooves 62 are formed on the surface of 64 which is attached to elements 32 and 41) of said head cleaning member (30,31).

**Regarding claim 5**, Ackerman further teaches a waste ink sump (41, figs.2, 4; col.6, lines 31-32) is further provided so as to collect waste ink that has flown through said ink discharging grooves (62)(col.6, lines 29-48).

**Regarding claim 6**, Ackerman further teaches said waste ink sump (41, figs.2, 4) is further provided with an ink absorbent (col.6, lines 29-48; the waste ink sump 41 is an ink absorbent).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ackerman (US 5,555,461).

Ackerman teaches the claimed invention ink discharge grooves (62, fig.2; col.6, lines 17-19) except for the ink discharging grooves have a cross sectional shape selected from the group consisting of U-shape, V-shape, rectangular shape and a combination thereof. Since it is well known in the art to use those different shapes of grooves, it would have been obvious to one ordinary skill in the art at the time the invention was made to have formed the grooves of Ackerman in the form of U-shape, V-shape, rectangular shape and a combination thereof. Since applicant has not disclosed that any particular shape of a grooves or any particular combination of groove shapes solve any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any one of groove shapes or any combination of those groove shapes. In re Dailey ,149 USPQ 47 (CCPA 1966)

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ackerman in view of Insley et al. (US 6,290,685).

Ackerman teaches substantially the claimed invention except for a side wall which extends in the longitudinal direction and rises up higher than the ridge-like projections defining said ink discharging groove is provided on both ends of said head cleaning member.

However, Insley et al. teaches a side wall (18", fig.2c; col.9, lines 16-17) which extends in the longitudinal direction (col.9, lines 29-41) and rises up higher than the ridge-like projections (33, fig.2c; col.9, lines 18-19) defining said ink discharging groove (34, fig.2c; col.9, line 20) is provided on both ends (see fig.2c).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the groove, channel, structure of Insley et al in the head cleaning member of Ackerman. The motivation being to form two different channels/grooves (1<sup>st</sup> channel 32 and 2<sup>nd</sup> channel 34 fig.2c of Insley et al) with in the side walls (18" fig.2c of Insley et al) so that if there is an overflow of fluid from the first chamber 34, the second channel 32 could be used and also the side walls 18" gives more strength to the groove/channel structure of the cleaning member.

### ***Response to Arguments***

7. Applicant's arguments filed on 06/29/2007 have been fully considered but they are not persuasive.

Applicant's argument regarding the operation of the cleaning unit of Ackerman with reference to the absorbent element 41 and plurality of parallel discharging grooves 62 is noted. However, figs. 1-4 and col. 6, lines 29-48 teaches that the waste ink collected from the surface of print head nozzle surface 23 by edge 60 on print head cleaning members 30 and 31 flows through along the plurality of parallel discharging grooves 62 to the absorbent pad 41 (see figs. 2, 3).

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henok Legesse whose telephone number is (571) 270-

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1615. The examiner can normally be reached on Mon - FRI, 7:30-5:00, ALT.FRI  
EST.TIME.

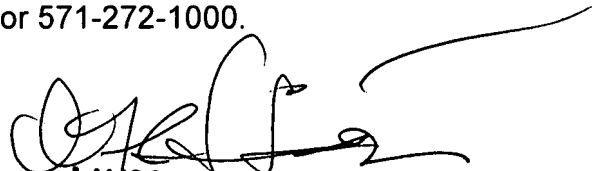
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

H.L.

HL

09/04/2007

  
LAMSON NGUYEN  
PRIMARY EXAMINER  
09/14/07